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ELECTRONIC IMAGE AND TONE RETURN EQUIPMENT WITH  
SWITCHING SYSTEM AND REMOTE CONTROL RECEIVER  
FOR TELEVISION DECODER  
[Elektronisches Bild- und Ton-Wiedergabe-Gerät mit  
Umschalt-Anlage und Fernbedienungs-Empfänger  
für Fernseh-Umsetzer]

Werner Diederich

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To the German Patent Service

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Subject: Application for an arranged patent for the  
enclosed application form.

Electronic image and tone return apparatus with switching  
system and remote control receiver for television decoder.

The invention concerns an electronic image and tone return  
apparatus with switching system and remote control receiver for  
television decoder in order to transmit a previously produced  
television image and tone material from a television decoder.

In a television decoder of this kind a switching system is  
required which on the one side can transfer the present image and  
tone signal and upon the request of a broadcast system makes  
possible an image and tone return from the television decoder, in  
order to, on the other side, to reach all receivers in a regional  
area provided.

It is known that the present television decoders receive  
image and tone signals, converting and transmitting intensified  
in a receiving area, where the large broadcast systems cannot  
transmit.

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<sup>1</sup>Numbers in the margin indicate pagination in the foreign  
text.

The decoder nowadays is only used one-sided with great technical expenditure.

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The invention forms the purpose to also make possible, in addition to nationwide television programming, local television programming and therefore make possible important announcements, for example doctor-emergency service; for health services, for example, vaccination and unit of blood appointments; for church and culture and user information in the local area.

The purpose is thereby solved according to the invention that the electronic image and tone return apparatus with switching system and remote control receiver is prepared with previously produced image and tone material, to transmit a separate program at any time. The previously produced image and tone material is exchanged manually from time to time.

Such an electronic image and tone return apparatus with switching system and remote control receiver for television decoder is installed in the change of the television decoder in laying cable, in order to obtain the same effect here.

The advantages achieved with the invention in that respect exist in that instead of programming of the radio institution, additional, prefabricated, informative, separate local regional programming is broadcast by remote control at any time.

An example of implementation of the invention is represented in 2 drawings and is more closely described in the following.

Sketch 1 shows: Electronic image and tone return apparatus with switching system and remote control receiver as block diagram in decoder.

Sketch 2: The schematic course from studio up to the receiver.

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Electronic image and tone return apparatus with switching system and remote control receiver as block diagram in decoder (to sketch no. 1)

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"B" decoder (Small-transmitting system)

The image signal comes from "A" (see sketch 2), is received by 1 (receiver of the decoder), converted, intensified in 2 and transferred from the sending antenna of the system "B" to "C." (normal course, as until now)

expanded task:

The image signal comes from "A" and is received by 1. The modulation signal provided by "c" (see sketch no. 2) goes on to 3 remote control receiver.

3 places 4 relay switching system, 5 remote control service part for 6 and 6 VCR in running readiness.

4 has the program broadcasting for "B" to control; either transmission from the studio or transmission from separate (VCR) regional programming.

5 controls the VCR 6 in the following functions:

1. Apparatus tuned in <sup>on</sup>
2. Repetition (tape leader)

3. Stop
4. Fast rewind
5. Apparatus turned off

6 produces the image to be broadcast upon request of "a" (see sketch 2) and passes it over 4 to 2 for intensification, then from the transmission antenna from "B," to be received by "C."

\*

VCR=Video Cassette Recorder

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The schematic course from studio up to the receiver (in sketch 2)

- "a" regional exchange
- "b" studio
- "c" modulation impulse
- "d" directional radio or cable to the large transmitter

In studio "b" the programming for the actual part of the regional information broadcast are established. The image runs in the regional space "a" and from here across "d" for transmission. The new "c" to be set up generates the signal for starting the video tapes in decoder "B" and are controlled in regional space "a."

For transmission and receiving system

- "A" Large transmission system
- "B" Small transmission system (decoder)
- "C" Television receiver apparatus

The image signal coming from "a," "b," "d" are intensified in large transmitter "A" and broadcast. The image of "C1," "C2,"

"B2" and "B3" are received. "C3" receives the image of "a," "b" over "B3." The uninterrupted course repeated the previous use.

In order to receive the desired local information course of programming in the area of the large transmission system "A" also, the large transmitter "A" will obtain a modified system "B", as is installed in "B2" and "B3." Therefore, "A" also has a separate program and supplies <sup>C1</sup>~~01~~ on another channel the image generated in "B1".

\* It is the previously produced image and tone material which remains constant over a desired time period.

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"C2" lays its antenna on "B2", in order to receive its local programming.

Until now "C3" received its image from "B3." Now all positions are established and the actual Life programming from the studio and local information can begin.

"b" begins over "a", "d" the program and reaches over "A" (B1, B2, B3) the television receiver (C1, C2, C3). After the course of an actual Life part "a" switches to "c" "d" and gives "B1," "B2" and "B3" the command to turn over from 5 / 6 and 4.

A relay (4) in "B1", "B2" and "B3" switches and passes on now the image set in from the VCR according to "C1", "C2", and "C3".

After the course of the local information provided "a" "c" back and studio "b" continues its programming; and it is as often as "a" is desired.

For "C 0" there is no change in the process, since this

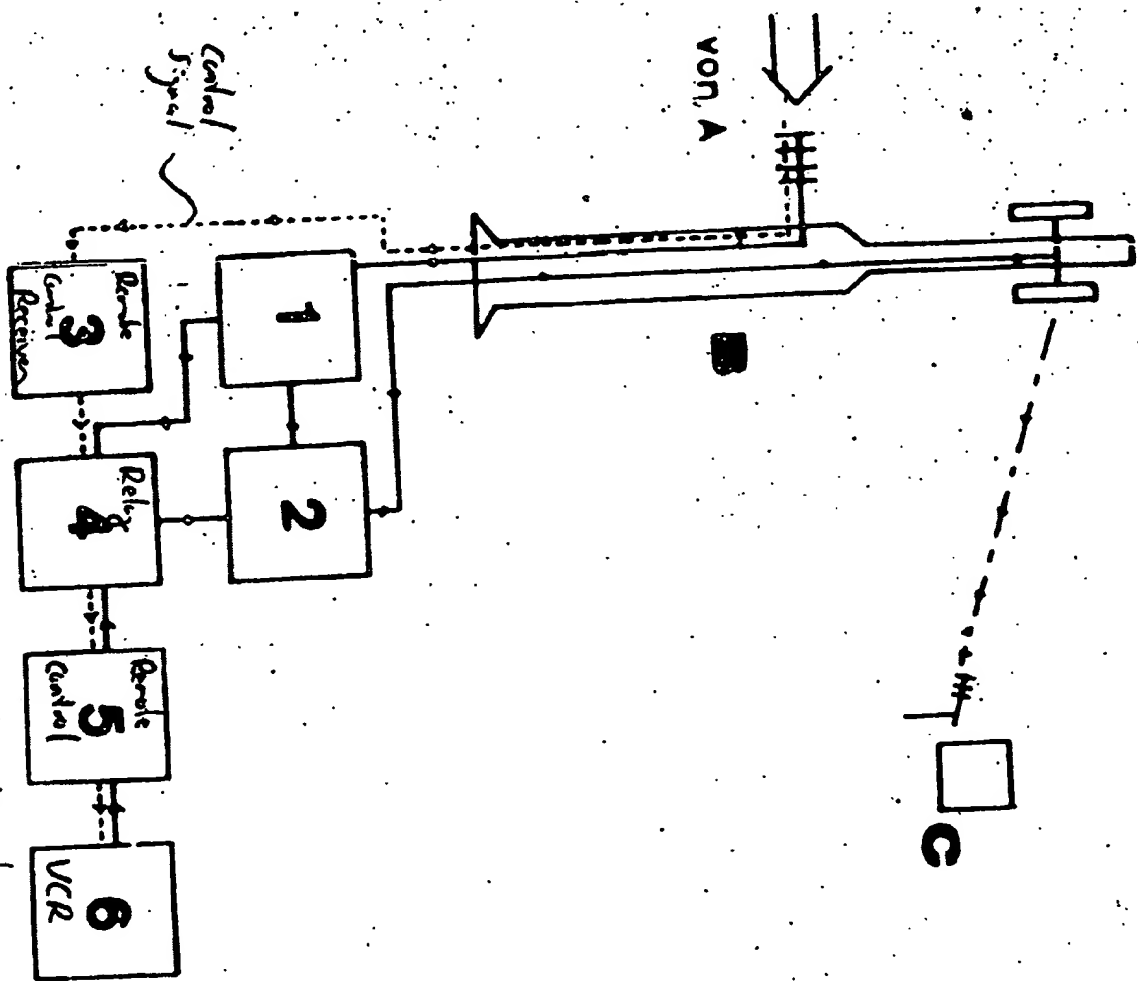
The innovation is thereby characterized that the electronic image and tone return apparatus with switching system and remote control receiver is also to be used for cable television.

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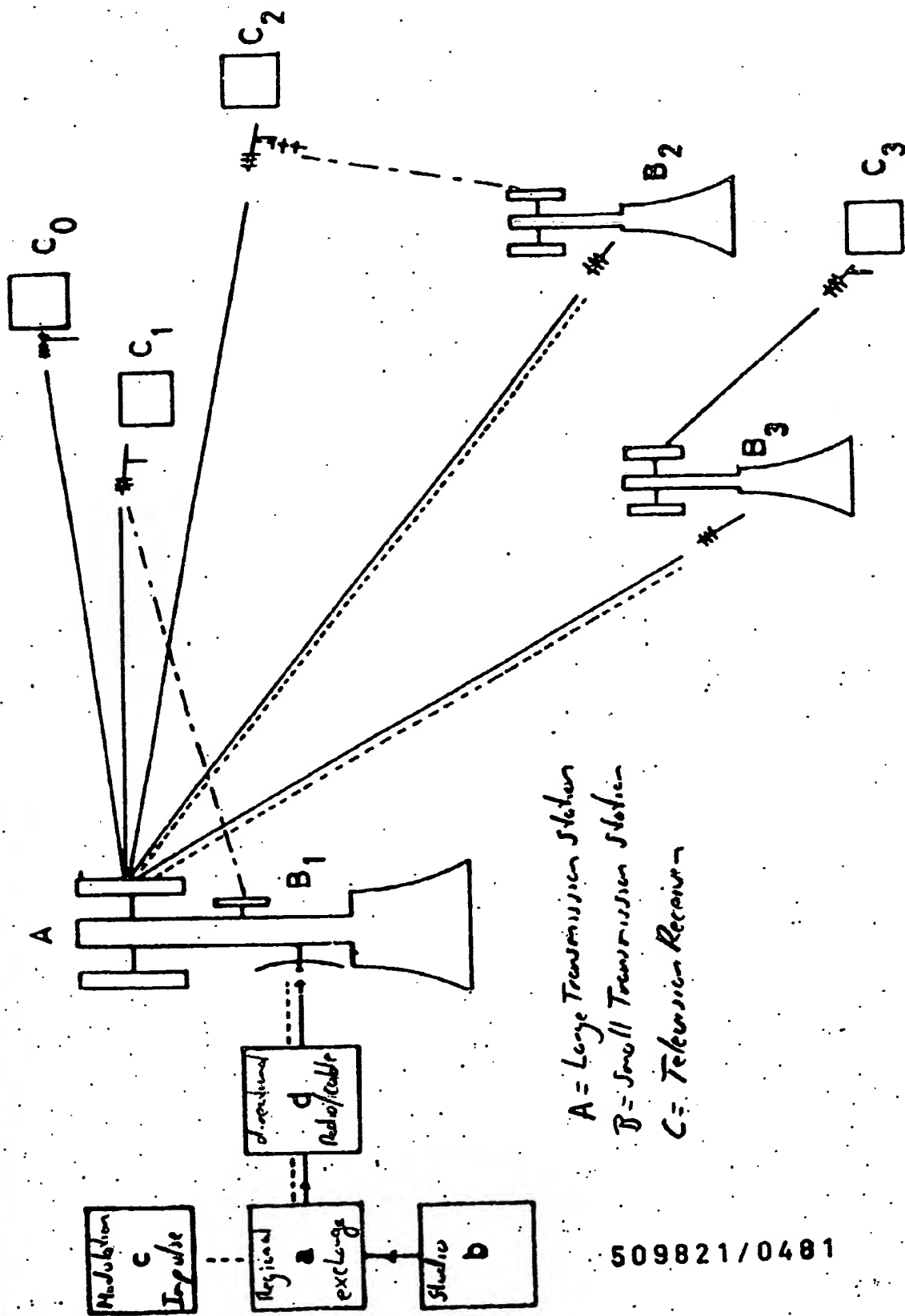
Page 8 is Sketch 2

Page 9 is Sketch 1

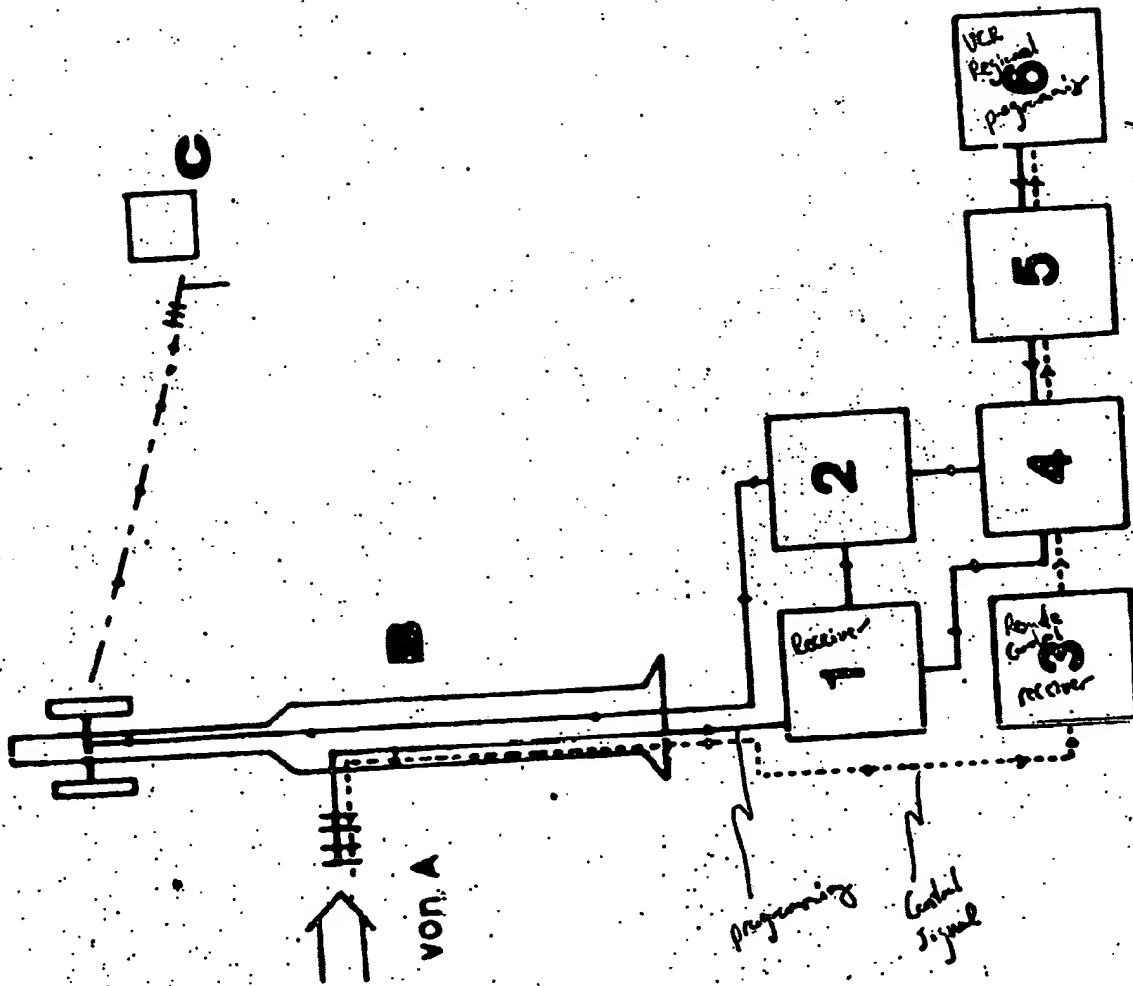




Skizze 1



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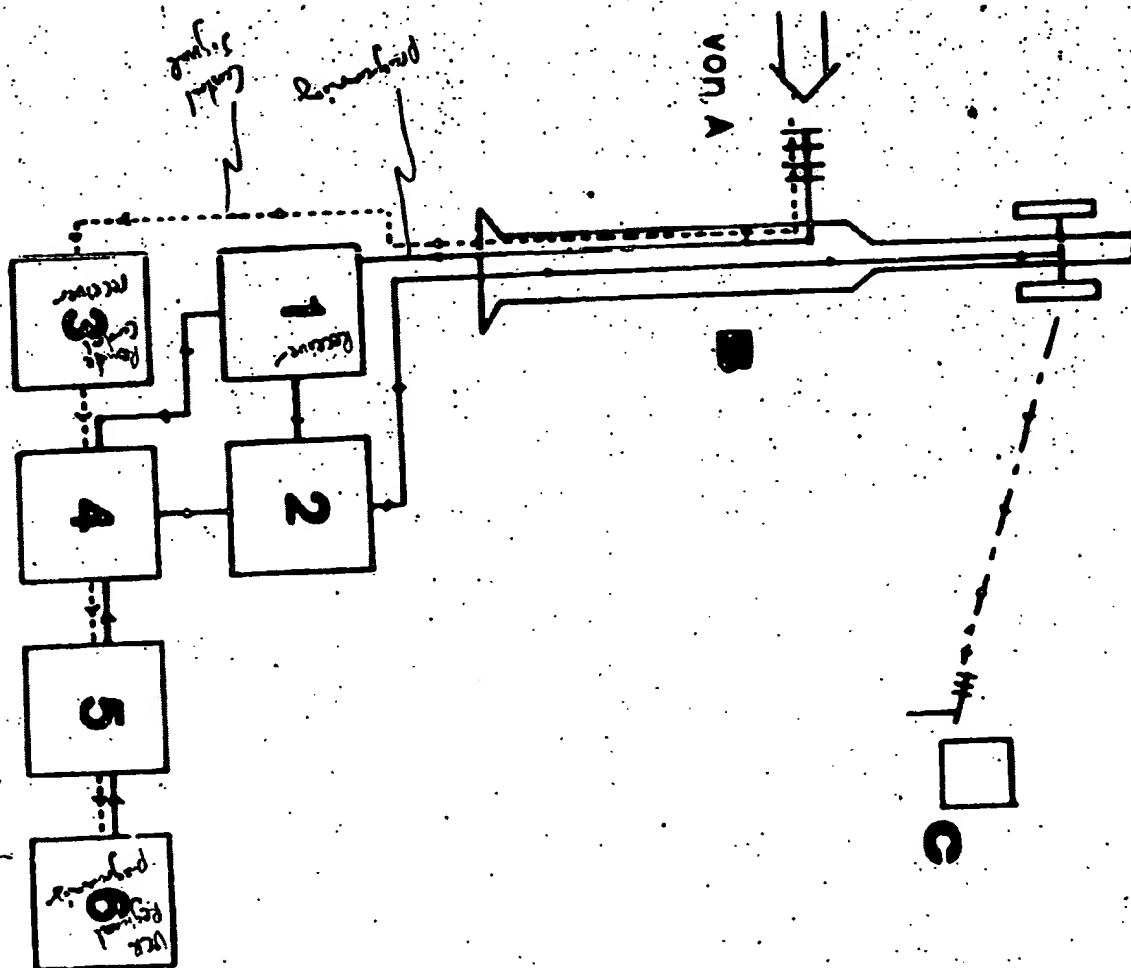
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Skizze 1

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